CLAIMS:

1. A container for the formation of self-baking electrodes for use in electric reduction furnaces comprising:

a cylindrical casing;

within the cylindrical casing are a plurality of ribs attached along the inner surface of the casing lengthwise of the cylindrical casing, wherein at least one of the ribs is made of a material comprising copper.

2. The container according to claim 1 wherein the cylindrical casing is made of a material comprising aluminum.

3. The container according to claim 1 wherein each of the ribs have circular holes arranged alternately and offset from an axis that runs down the rib parallel to the inner surface of the cylindrical casing.

4. The container according to claim 1 wherein each of the ribs is attached to the casing by means of screws.

5. The container according to claim 1 wherein each of the ribs are attached approximately perpendicularly to the inner surface of the casing.

6. The container according to claim 5, wherein each of the ribs has circular holes arranged alternately and offset from an axis that runs down the rib parallel to the inner surface of the cylindrical casing.

7. The container according to claim 1, wherein the container further comprises electrode paste.

8. A container according to claim 1, wherein the casing is split lengthwise into 2 halves.

9. A container according to claim 1 wherein all of the ribs are made of a copper alloy.

10. A method of forming an electrode comprising:

adding unbaked electrode paste to an electrode container comprising a cylindrical casing containing therein a plurality of ribs attached along the inner surface of the casing lengthwise of the cylindrical casing, wherein at least one of the ribs is made of a material comprising copper; and

heating the paste to form the electrode.

11. An electrode produced in accordance with the method of Claim 10.

12. A method for manufacturing silicon using a self baking electrode comprising:

forming an electrode in an electrode container comprising a cylindrical casing containing therein a plurality of ribs attached along the inner surface of the casing lengthwise of the cylindrical casing, wherein at least one of the ribs is made of a material comprising copper;

introducing the electrode into an electric reduction furnace containing silicon dioxide and a carbonaceous reducing agent; and

running electrical energy through the electrode until the desired silicon is produced.

13. The silicon produced by the method of Claim 12.

14. A method of producing silanes comprising reacting an alkylhalide with the silicon metal of Claim 13 at an elevated temperature.